AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-2. (Cancelled).

3. (Currently Amended) A method for manufacturing an actuator element formed of a laminate comprising a metal layer and a polymer electrolyte, wherein:

the manufacturing method ~~is that for~~ includes applying electroless plating to a polymer electrolyte;

the method for applying electroless plating contains a pre-treatment step ~~that occurs prior to applying electroless plating to the polymer electrolyte~~;

the pre-treatment step is carried out prior to applying plating to the polymer electrolyte;

the pre-treatment step is a swelling step for swelling the polymer electrolyte by ~~means of permeation of~~ allowing a good solvent or a mixed solvent containing a good solvent to permeate into the polymer electrolyte;

~~the swelling step is a step for making~~ a thickness of the polymer electrolyte in a swollen state ~~to be~~ is 130% or more with respect to that of the polymer electrolyte in a dry state;

wherein, after the ~~swelling~~ pre-treatment step, an electroless plating step comprising an adsorption step and a reduction step is carried out;

the adsorption step is a step for adsorbing a metal complex to the polymer electrolyte; and

the reduction step is a step for allowing a reductant solution to be in contact with the polymer electrolyte to which the metal complex has been adsorbed;

wherein the laminate has an electric double-layer capacitance of 3 mF/cm^2 or more when a thickness of the laminate is converted to 170 μm.

4. (Currently Amended) The method for manufacturing an actuator element formed of a laminate as claimed in claim 3, characterized in that the swelling step allows a good solvent or a mixed solvent containing a good solvent to permeate into the polymer electrolyte, whereby a degree of crystallization of the polymer electrolyte is reduced, so that intertwist of side chains containing at least functional groups in a polymer constituting the polymer electrolyte is moderated.

5. (Currently Amended) The method for manufacturing an actuator element formed of a laminate as claimed in claim 3, wherein the good solvent is methanol.

6. (Currently Amended) The method for manufacturing an actuator element formed of a laminate as claimed in claim 3, wherein the polymer electrolyte is an ion-exchange resin, and the good solvent is a mixed solution consisting of a basic salt and methanol.

7-12. (Cancelled).

13. (Currently Amended) The method for manufacturing an actuator element formed of a laminate as claimed in claim 4, wherein the good solvent is methanol.

14. (Currently Amended) The method for manufacturing an actuator element formed of a laminate as claimed in claim 4, wherein the polymer electrolyte is an ion-exchange resin, and the good solvent is a mixed solution consisting of a basic salt and methanol.

15-16. (Canceled).

17. (Currently Amended) The method for manufacturing an actuator element formed of a laminate as claimed in claim 3, wherein the polymer electrolyte is an ion-exchange resin.

18-20. (Cancelled)

21. (Currently Amended) The method for manufacturing an actuator element formed of a laminate as claimed in claim 3, wherein the good solvent contains at least one solvent selected from the group consisting of: methanol, ethanol, propanol, hexafluoro-2-propanol, dimethyl sulfoxide, N-methylpyrrolidone, dimethylformamide, ethylene glycol, diethylene glycol, and glycerin.

22-23. (Cancelled).